



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/399,678	09/21/1999	DUANE L. ABBEY	98CR023/KE	2540

7590 12/29/2003

ATTENTION: KYLE EPPELE  
ROCKWELL COLLINS INC  
400 COLLINS RD NE  
CEDAR RAPIDS, IA 52498

EXAMINER

MUNOZ, GUILLERMO

ART UNIT	PAPER NUMBER
----------	--------------

2634

DATE MAILED: 12/29/2003

7

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/399,678

Applicant(s)

ABBEY, DUANE L.

Examiner

Guillermo Munoz

Art Unit

2634

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 29 October 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3, 6-8, 13, 14, 16, 20-22, 26 and 29 is/are rejected.
- 7) ☒ Claim(s) 4, 5, 9-12, 15, 17-19, 23-25, 27, 28 and 30 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.  
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_ 6) ☐ Other:

## **DETAILED ACTION**

### ***Withdrawal of Final Rejection***

The finality of the last action, Paper No. 4, is withdrawn in view of newly discovered reference, Fang et al. (US 6,408,318).

### ***Withdrawal of Allowance***

The indicated allowability of claims 1-12 and 26-30 is withdrawn in view of the newly discovered reference(s) to Fang et al. (US 6,408,318). Rejections based on the newly cited reference(s) follow.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 2, 3, 6, 7, 8, 13, 14, 16, 20-22, 26, and 29 are rejected under 35 U.S.C. 102(e) as being anticipated by Fang et al. (US 6,408,318).

Regarding claim 1, Fang et al. disclose a multiple stage decimation filter which teach all the claimed subject matter “a cascaded integrator...with said cascaded comb structure” in claim 1 as follows. Fang et al. teach a cascaded integrator structure in Figure 1B, element 14-1. Fang et al. further teaches staggered comb filter stages in Figure 1B, elements 14-2-1 and 14-2-2, each having a sample rate conversion performed on the input signal.

Art Unit: 2634

Regarding claim 2, Fang et al. further teach the claimed subject matter, note column 5, lines 55-57.

Regarding claim 3, Fang et al. further teach the claimed subject matter, note Figure 1B, element 14-1.

Regarding claim 6, Fang et al. further teach the claimed subject matter, note column 1, lines 5-8.

Regarding claim 7, Fang et al. further teach the claimed subject matter, note column 1, lines 28-30.

Regarding claim 8, Fang et al. further teach the claimed subject matter, note Figure 1B, elements 14-1 (four integrator stages), 14-2-1 (three comb stages), and 14-2-2 (one comb stage).

Regarding claim 13, Fang et al. disclose a multiple stage decimation filter which teach all the claimed subject matter "data rate change component...having an equal number of integrator stages" in claim 13 as follows. Fang et al. teach a zero insertion filter in Figure 1A, element 12. Fang et al. further teach the output of the zero insertion filter coupled to the comb filter structure, note column 2, lines 51-67.

Regarding claim 14, Fang et al. further teach the claimed subject matter, note Figure 1B, element 14-1.

Regarding claim 16, Fang et al. further teach the claimed subject matter, note column 2, lines 53-56.

Regarding claim 20, see claim 13.

Regarding claim 21, see claim 14.

Regarding claim 22, see claim 16.

Art Unit: 2634

Regarding claim 26, see claim 1.

Regarding claim 29, see claim 8.

### ***Claim Objections***

Claims 13 and 20 are objected to for having limitations not found in the specification.

Regarding claim 13, the phrase "recursive integrator stage" in line 4 is not found in the specification.

Regarding claim 20, the phrase "recursive integrator stage" in lines 5-6 is not found in the specification.

Claims 4, 5, 9-12, 15, 17-19, 23-25, 27, 28, and 30 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

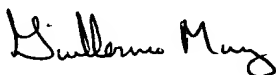
### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Guillermo Munoz whose telephone number is 703-305-4224.

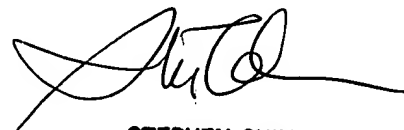
The examiner can normally be reached on Monday-Friday 8:30a.m-4:30p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Chin can be reached on 703-305-4714. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-306-0377.



GM  
December 2, 2003

  
**STEPHEN CHIN**  
**SUPERVISORY PATENT EXAMINEE**  
**TECHNOLOGY CENTER 2600**